





Sustainable Architecture for Finance in Europe







## Recall Robert A. Kindler's licence plate...





## Reasons for TBTF (bail-out rationality)

Failure of SIFI potentially impacts on national, European or global financial system

Functioning of financial markets impaired (eg loss of trust on interbank markets)

Negative impact on total output of economy (growth and welfare losses)

Threats to political stability and democracy

Government bail-out as reaction to impending perils

Markets anticipate government behavior and therefore price on assumption of implicit government guarantee



## Implicit government guarantees for banks (bail-out)

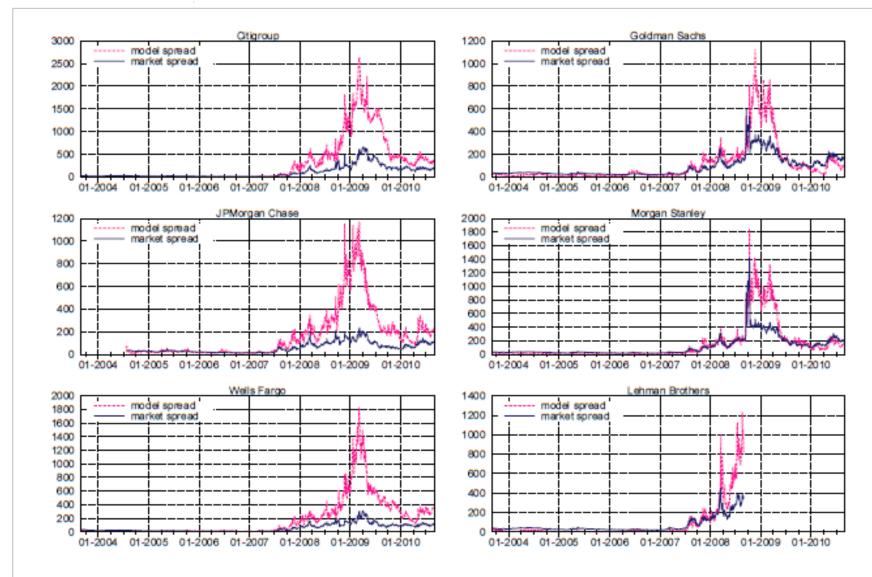
Government guarantee provides lower bound for bank liabilities and reduces default probability compared to endogenously determined insolvency (asset valuation process)

Banks benefiting from implicit government guarantees (TBTF etc.) enjoy lower risk premiums/favorable refinancing conditions with rational investors  $\rightarrow$  inefficient pricing on liability side of bank's balance sheet

"government subsidy" facilitates excessive risk taking, overinvestment (moral hazard), ie inefficient investment decisions on asset side of balance sheet

debt-governance impaired because riskbearing capacity doesn't drive pricing of bank capital (no market discipline)

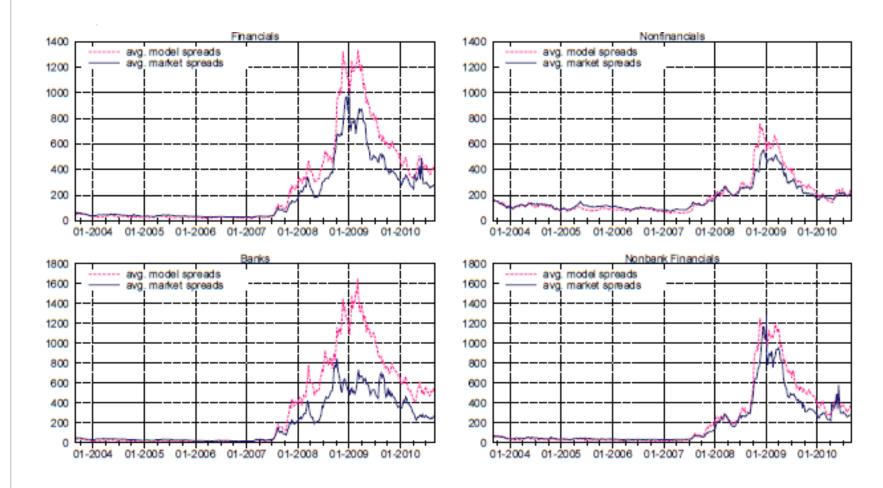




Schweikhard & Tsesmelidakis (2012, 51)



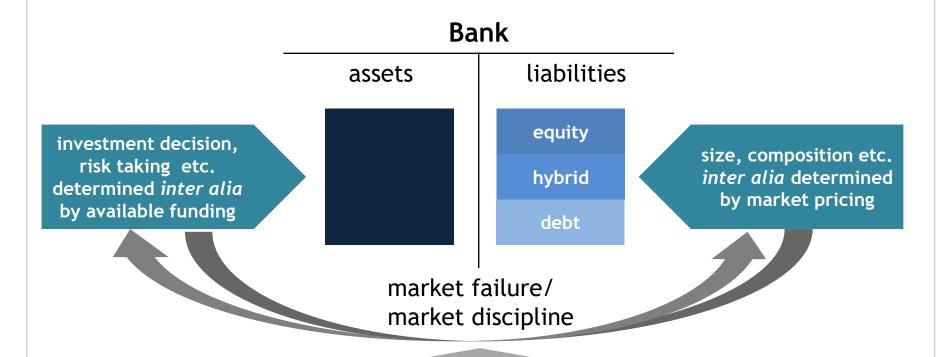
2/7/2020



Schweikhard & Tsesmelidakis (2012, 52)



### Regulatory intervention to instill market discipline (resolution)



Regulatory intervention to credibly ensure private sector loss participation (risk bearing)

(i) undo government guarantees (no bail-out)

(ii) provide for risk sensitive funding

(iii) prevent moral hazard, excessive risk-taking, overinvestment etc.



### The fundamental trade-off

### The Liikanen "Greenhouse"

artificially create and maintain (monitor) microclimate for market discipline to work in the banking sector

Potentially conflicting policy objectives (see e.g. Liikanen recommendations)

market discipline: mandatory private sector loss-participation (bail-in) systemic risk: resolution of failing banks without financial stability implications (paramount); "safe to fail"



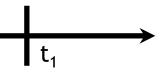
## Run risk as a consequence of bail-in

Even if risk sensitive pricing of bail-inable financial instruments occurs, bail-in creates incentives to run

Write-off bond with nominal value 100

- trades at 80 (probability of bail-in 20% in t<sub>1</sub>)
- carries risk-reflecting coupon of 25% due in  $t_1$

payouts realize, ie investor gets 125 or 0



expectation value in  $t_1$  is 100 (0.80 \* 125)

if bail-in becomes more likely after  $t_0$  by 10%, expectation value drops accordingly to 87.5 (0.70 \* 125)  $\rightarrow$  rational investor has incentive to seek repayment or sale on secondary market at any price > 87.5



### Preconditions for effective bail-in tool

### Desiderata (e.g. Liikanen)

# Sophisticated investors must be capable to price risk adequately (ex ante designation)

- clear cut trigger event (e.g. CET1 ratio)
- bail-inable instruments identifiable
- specific consequences predictable (automatic haircut/conversion)

## Bail-in must not destabilize markets (knock-on effects)

- Credible loss bearing capacity
- Non-financials as holders (insurers, pension funds, HNIs, hedge-funds)

in the ideal world failing bank is akin to chapter 11 airline

#### **BRRD/SRMR**

Sophisticated investors will find it difficult to gauge actual risk (discretionary *ad hoc* bail-in)

- resolution trigger determined by multiple agency decisions
- exceptions from bail-in granted in concurrent agency decisions

No meaningful restriction on holdings of bail-in capital



## TLAC and MREL as (partial) solutions?

- Tying it all together: TLAC/MREL specification as essential part of credible resolution:
  - "The objective of this standard is to ensure that G-SIBs have the loss-absorbing and recapitalisation capacity necessary to help ensure that ... critical functions can be continued without taxpayers' funds (public funds) or financial stability being put at risk." (FSB TLAC term sheet item 1)
  - "The TLAC standard defines a minimum requirement for the instruments and liabilities that should be readily available for bail-in within resolution at G-SIBs..." (FSB press release)
  - "To avoid institutions structuring their liabilities in a manner that impedes the effectiveness of the bail-in tool it is appropriate to establish that the institutions meet at all times a minimum requirement for own funds and eligible liabilities..." (BRRD recital 79)

### Calibration of MREL

Prepositioning of MREL in cross-border groups (internal/external MREL)

Specific MREL (potential a to G-SII minimum)

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of MREL requirements



Decision on eligiblity preconditions (subordination requirement in particular)

nce" for WREL (loss

Inadequate product and market confidence buffers)

- adjustment of interest r change
- change unpredictable



## Main sources of uncertainty

Regime provides for a high degree of transparency (disclosure of MREL instruments etc.), see BRRD2, arts. 45i(2): full disclosure of amount of MREL instruments and characteristics

But ideal MREL instrument is non-runnable, long-term debt

Unforeseeable adjustments *ex post* (after risk assessment and investment decision has been made) problematic

options and discretion of CAs and RAs potentially problematic if altered ex post (although flexibility needed for effective resolution)

interplay of capital regulation (CRR/CRD IV) and resolution regime (BRRD) requires abundant cooperation and information sharing between a multitude of CAs and RAs of G-SIIs (most complex cross-border banks), see also BRRD2, art. 45h

## Calculation of TLAC and MREL (CRR2, BRRD2)

Overarching Objective: Supervisor/resolution authority must ensure that banks retain sufficient liabilities (quantitatively and qualitatively) earmarked for bail-in

FSB: TLAC G-SIBs

EU: MREL credit institutions and investment firms

FSB TLAC Principles and Term Sheet

#### **RWA Minimum**

 $\frac{own funds + eligible \ liabilities}{RWA} = 0,16 \ (0,18)$ 

 $\frac{\textit{own funds} + \textit{eligible liabilities}}{\textit{LRE}} = 0,06~(0,065)$ 

CRR2, arts. 92a et seq, BRRD2, arts. 45 et seq, 17

add on, BRRD2, art. 45d(1)(b)

G-SII Min, CRR2, arts. 92a et seq

institution specific MREL, BRRD2, arts. 45 et seq

Coordination requirement beyond T1 and T2 instruments!



## Determination of institution specific MREL

G-SII minimum set by CA (as risk based or non-risk based fraction of own funds and eligible liabilities)

RA may ramp-up MREL prescriptions if G-SII minimum insufficient to fulfil institution specific MREL requirements (BRRD2, art. 45d(2)(b))  $\rightarrow$  no cliff effects between G-SII and O-SII

At the end of the day, institution specific requirement is what matters in the EU

determination on a case by case bases, inter alia size, business model, group structure, systemic relevance etc

resolution within BRRD framework (tools) possible, in particular sufficient loss absorbing and recapitalization capacity

exclusion of certain liabilities from bail-in according to resolution plan



## MREL building blocks

### Institution specific MREL, BRRD2, art. 45(1)

Recapitalization amount, BRRD2, art. 45c(2)(b)

Own funds (CRR, art. 92(1)(c)) + P2 (CRD V, art. 104a)

- RWA calculation, BRRD, art. 45c(3)(a)(ii)
- LRE calculation, BRRD, 45(3)(b)(ii)

Loss absorption amount, BRRD2, art. 45c(2)(a)

Own funds (CRR, art. 92(1)(c)) + P2 (CRD V, art. 104a)

- RWA calculation, BRRD, art. 45c(3)(a)(i)
- LRE calculation, BRRD, 45(3)(b)(i)

Can be limited for institutions that don't meet public interest test, ie are liquidated in bankruptcy, BRRD2, art. 45(2) subpara. 2

Actual MREL level depends on periodically updated (!) resolution plan and RA projection for wind-up under national insolvency law



2/7/2020

## "Guidance" for additional MREL (COM proposal)?

### MREL guidance

loss absorption amount

recapitalization amount ("market confidence buffer")

"hard" MREL

G-SII minimum + add on

institution specific MREL

Availability and scope depend on CA determinations (stress test-based P2G) and RA projection (off standard resolution scenario)



## "Guidance" for additional MREL (COM proposal)?

Under COM proposal (BRRD, art. 45e), available if CA sets P2G, ie requires additional own funds as a result of stress testing in order to cover exceptional losses (changes potentially after each stress test!)

loss absorption part shall not exceed P2G set by CA

recapitalization part shall not exceed combined buffer (CRD IV, art. 128) set by CA unless additional MREL strictly necessary to guarantee failed institution's continued authorization post resolution in the medium term

Level of additional MREL requirement hinge on RA projection of off-standard resolution scenario (quasi-secondary resolution plan)



## Qualifications to subordination requirement

## MREL for G-SIIs CRR2, art. 72b(3), (4)

## RA may wave subordination requirement for amount of up to 3.5% of RWA if

- included liabilities rank pari-passu only with lowest ranking ineligible instruments
- inclusion "would not give rise to a material risk of a successful legal challenge"

## RA may wave subordination requirement if

- pari passu or junior ineligible liabilities are less than 5% of institution's own funds and eligibile liabilities
- inclusion "would not give rise to a material risk of a successful legal challenge"

### Institution specific MREL

Subordination requirement (CRR2, art. 72b(2)(d)) explicitly not referred to in BRRD2, art.  $45b(1) \rightarrow$  waived BRRD2, art. 45b(3) empowers RA to demand subordination if

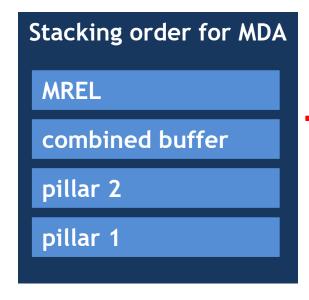
- needed to "ensure that the resolution entity can be resolved in a manner suitable to achieve the resolution objectives"
- eg bail-in would otherwise violate NCWO (subordination to cover losses in resolution beyond losses incurred in insolvency)

Subordination request from RA does not undo exemptions for G-SIIs

high degree of transparency of MREL But: reevaluation of prior decisions (long-term instruments)



## Sanctions for breach of MREL requirements





Stacking CBR above MREL leads to trigger of MDA framework if institution issues insuffient MREL instruments



## Sanctions for breach of MREL requirements

### Reactions to undercutting MREL requirements

Incisive supervisory powers, including acceleration of procedures to remove impediments to resolvability, demanding alterations to maturity profiles of eligible liabilities and plans to achieve higher MREL levels

Under stacking order approach that puts MREL above CBR failure to roll-over/issue sufficient MREL-instruments may lead to violation of CBR because excess CET1 needed to fulfil MREL (unavailable for buffers)

MDA framework triggered with automatic distribution restrictions in relation to CET1, AT1 instruments and variable remuneration  $\rightarrow$  potential crisis accelerator

M-MDA framework (BRRD2, art. 16a) doesn't fundamentally alter the assessment



## TBTF as starting point for FSB TLAC standard

TLAC standard applies only to G-SIBs

EU approach goes much further and covers all institutions that come under the BRRD

idea is smoothing of requirements, avoid cliff-effects at G-SII/O-SII-divide  $\rightarrow$  okay but, aren't we overdoing it?

MREL prescription for non-systemic institutions to cover loss absorption amount

mystery why bank-creditors of small institutions who hold ineligible claims (but can be bailed-in) have to be shielded at all costs from PSI

even haircutting (and reimbursing) depositors in insolvency should not be out of the picture, if the respective bank's failure is a non-systemic event

## MREL in (cross-border) groups

#### General trade-off:

- loss sharing/capital (liquidity) support among group members  $\rightarrow$  neglect drives cost of capital to unhealthy levels
- preferences of RAs for closure/resolution strategy differ according to costs and benefits that respective economy incurs in resolution

Credible SPE-approach largely solves problem: only BHC enters resolution; operating subs unaffected (US advantage through historical "accident")

### External MREL (TLAC)

- RWA Minimum & LRE Minimum for *resolution* entities calculated on the basis of consolidated balance sheet of *resolution*
- While TLAC standard does not prescribe minimum for subs that are not themselves resolution entities, BRRD2 continues to do so in principle

#### Internal MREL (TLAC)

- Pre-positioning of bail-in capital issued to resolution entity to support operations of subsidiaries
- For material subgroups of non-EU G-SIIs
   90% of external Minimum TLAC
- Subs of EU resolution entities may (exception) fulfil MREL requirement with instruments issued to resolution entity
- resolution entities and groups to be identified ex ante
- Transparency also of internal MREL
- BUT: decision involving entity and group level RAs and CAs (possible EBA mediation) subject to adjustment



group

## The gardeners future challenges

### Contestable consensus (cf. BRRD, art. 44):

- bail-in should in principle affect whole liability side of failing bank's balance sheet
- largely neglects systemic risk (bank runs) and ultimately undermines credibility

### Investor loss bearing capacity

### PSI must not destabilize markets (knockon effects)

- "storm resilience" of investors in bail-inable instruments (no liquidity stress as result of loss bearing), eg live insurers, pension funds, HNIs, hedge-funds
- "provisioning" by investors in bail-inable instruments (build up cushion from coupon payments over time)

Regulator should continuously monitor both aspects (eg deduction under TLAC standard; see also Götz and Tröger, 2016; Götz, Krahnen and Tröger, 2018)

#### Bail-in maximum

## Liquidity and term transformation makes banks inherently fragile (run risk)

- can be seen as welcome source of discipline (Diamond and Rajan 2000)
- but risk of contagion and irrational (panic driven) runs also exists (Allen et al., 2017)
- all other short term liabilities not covered by DGS "protected" by withdrawal rights
- undermines stabilization efforts at individual institutions and market wide

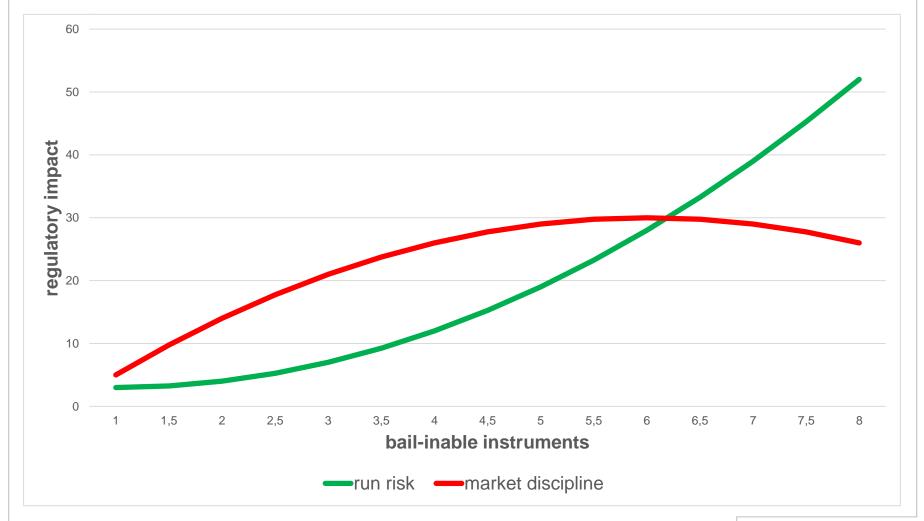
At margin, negative stability implications can outweigh positive disciplining effect of additional bail-in (upper limit)

23



2/7/2020

## Market discipline and run risk with bail-in





## Policy consequences

Highly discretionary and unspecific ad hoc systemic exception under BRRD, art. 44 para. 3 lit. b) insufficient to shape desirable market expectations

Clear rule needed that can be derived analytically from a tripartition of the liability side of banks' balance sheets

TLAC/MREL

mezzanine tranche

covered deposits

market discipline

cost benefit trade-off

run risk

